Cones. Unopened cones of both species are quite as useful for identification as the opened cones. The immature cones of *Pinus ponderosa* are generally green in color, while the cones of *Pinus Jeffreyi* are generally purple, but there are so many variations and reversals of this rule that color should not be considered an identifying feature in all localities. Cone lengths are also variable, departing from the approximations presented here to such an extent that, except for specimens showing extremes of size, they should be considered much less reliable than the other features mentioned.

Soil Conservation Service,
United States Department of Agriculture
Berkeley, California, December, 1939.

A NEW SPECIES OF ASTRAGALUS FROM ARIZONA[1]

C. L. Porter

Astragalus Beathii sp. nov. Radix perennis; caules plurimi, 4–6 dm. longi, striati seu sulcati, glabri; folia 10–15 cm. longa, foliolis 11–21, plerumque oppositis, nunc ellipticis, obtusis, nunc ovato-obcordatis, basi in petiolulum perbrevem attenuatis; racemi 10 ad 20 flori, floribus densis, purpurascentibus; calyx oblongus, pilis albis, dentibus brevibus lanceolato-subulatis; vexillum ovatum, attenuatum, obtusum, fere 22 mm. longum; carina obtusa; legumen cartilagineum, glabrum, fere 3–4 cm. longum, oblongi-cylindraceum, semibiloculare, polyspermum, sutura superiore obtusa, inferiore introflexa; legumen, sectione transversa, rotundum videatur; semina reniformia, fere 3 mm. longa.

Plants perennial, many stemmed from the summit of a strong taproot, the stems erect, glabrous, striate to sulcate; leaves pinnately 11- to 21-foliolate, 10–15 cm. long, strigose when young, becoming glabrate when mature; leaflets varying from elliptical and obtuse in upper leaves to ovate-obcordate in basal leaves, those of the basal leaves often much smaller, subopposite on the rachis, and narrowed below into a very short petiolule; racemes 10- to 20-flowered, the flowers dense, purple; calyx oblong, white-strigose, the teeth short lance-subulate, about one-third the length of the tube; banner ovate, attenuate at base, obtuse at apex, about 22 mm. long, moderately arched; keel obtuse; legume coriaceous when mature, fleshy when young, sessile or subsessile, glabrous, about 3–4 cm. long, 7 mm. wide and thick, oblong-cylindrical, rounded in cross section, the upper suture obtuse, not prominent, the lower suture intruded and forming a thick septum about 2 mm. high within; seeds numerous, reniform, about 3 mm. long.

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[1] Contribution no. 181 from the Department of Botany and the Rocky Mountain Herbarium of the University of Wyoming, Laramie.

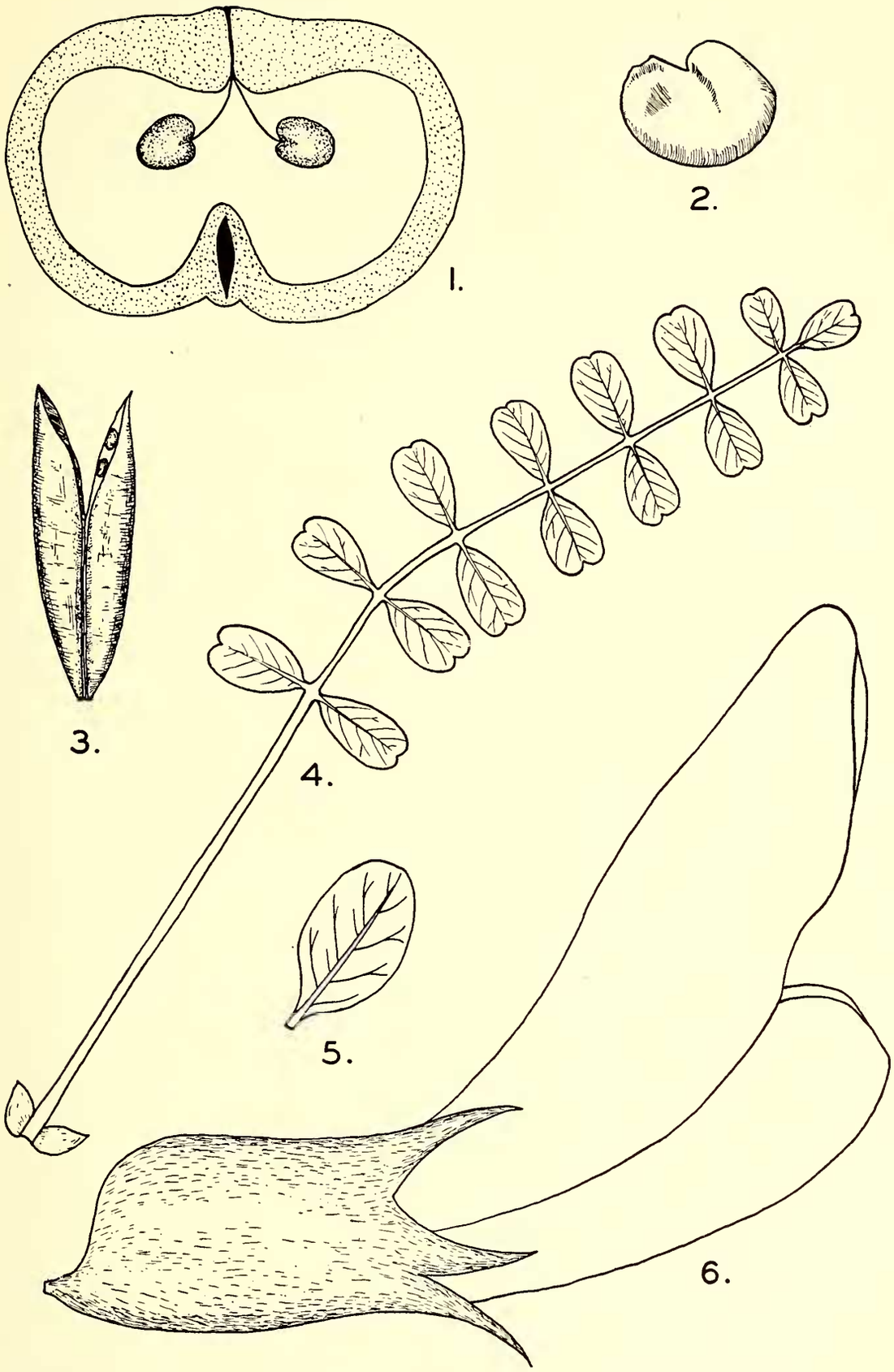

PLATE 3. ASTRAGALUS BEATHII PORTER. FIG. 1, median section of mature pod ×5; fig. 2, seed ×5; fig. 3, mature pod in ventral view ×1; fig. 4, basal leaf ×1; fig. 5, leaflet of cauline leaf ×1; fig. 6, flower ×5.

Type. Two miles south of Cameron, Coconino County, Arizona, June 10, 1939, *L. N. Goodding Sel. 34–39* (Rocky Mountain Herbarium; isotype, Missouri Botanical Garden).

This species may be referred to section Preusii of Jones (Rev. Astrag. 1923) and to the genus *Jonesiella* of Rydberg (N. Am. Fl. 24: 401. 1929). The elongated, straight, cylindrical, sessile or subsessile pods and the dark purple flowers, as well as the erect many-stemmed growth from a strong taproot will readily distinguish it from any of its near relatives. It appears to be very limited in distribution, being found only in the type locality as far as is known, but there it is quite abundant and conspicuous.

The writer takes pleasure in naming this plant for Professor O. A. Beath who first discovered it while on a field trip in connection with his work on seleniferous plants. Since he was unable to obtain mature fruit at the time he first saw it, he informed Mr. L. N. Goodding of the locality and it was through Mr. Goodding that the type material was later obtained.

University of Wyoming,
Laramie, January 24, 1940.

ALBERT RADDIN SWEETSER

(1861–1940)

In the death of Dr. Albert Raddin Sweetser the Pacific Coast has lost one of its best-loved teaching botanists. Dr. Sweetser was born at Mendon, Massachusetts, July 15, 1861, the son of a Methodist minister. His early education was obtained in Massachusetts, in the public schools and at Wilbraham Academy. Entering Wesleyan University, Middletown, Connecticut, in 1880 he received from that institution the degree of Bachelor of Arts in 1884 and of Master of Arts in 1887. Then followed a year at Massachusetts Institute of Technology, where he took special work in chemistry. His first teaching was done in the public schools, Cape Cod, and later at Bucksport, Maine, where he taught in a Methodist seminary. While at Bucksport, in 1888, he was married to Carrie K. Phinney, whom he had met on Cape Cod. His next teaching position was in a Methodist school at Tilton, New Hampshire. In 1893 he entered the Harvard Graduate School of Botany, and remained there for four years. During his last two years at Harvard he was an assistant in botany and at the same time was teaching in Radcliffe College. In 1897 he accepted an invitation to join the faculty of Pacific University at Forest Grove, Oregon. He went to the University of Oregon in 1902 as Professor of Biology, and in 1909 became head of the Department of Botany, a position he occupied until his retirement in 1931. In that year the faculty of the University of Oregon conferred upon him the honorary degree of Doctor of Science.